

FCC Radio Test Report

FCC ID: KR5-BSRFV1RW0

This report concerns: Original Grant

Project No. : 2106C224
Equipment : Intelligent Antenna Module
Brand Name : Continental
Test Model : BSRF-V1RWHIGH.0
Series Model : N/A
Applicant : Continental Automotive GmbH
Address : Siemensstrasse 12 SV C TS RBG EMC-Laboratory Regensburg Germany 93055
Manufacturer : Continental Automotive GmbH
Address : Siemensstrasse 12, 93055 Regensburg, Germany
Factory : Continental Automotive Systems S.R.L.
Address : Strada Salzburg 8, 550018 Sibiu, Romania
Date of Receipt : Jul. 19, 2021
Date of Test : Jul. 20, 2021 ~ Aug. 16, 2021
Issued Date : Jan. 19, 2022
Report Version : R01
Test Sample : SN: 213310000FS
Standard(s) : 47 CFR FCC Part 24 Subpart E
47 CFR FCC Part 2
ANSI/TIA/EIA-603-E-2016
FCC KDB 971168 D01 Power Meas License Digital Systems v03r01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Treey Chen

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TESTING CERT #5123.02

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

The report must not be used by the client to claim product certification, approval, or endorsement by NIST, A2LA, or any agency of the U.S. Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and is not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Sep. 30, 2021
R01	Modified the comments of TCB.	Jan. 19, 2022

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part 24 Subpart E & Part 2			
Standard(s) Section	Test Item	Judgment	Remark
2.1046 24.232(c)	Equivalent Isotropic Radiated Power	PASS	-----
24.238(a)	Band Edge Measurements	PASS	-----
2.1049	Occupied Bandwidth	PASS	Note (2)(3)
2.1051 24.238(a)	Conducted Spurious Emissions	PASS	Note (2)(3)
2.1053 24.238(a)	Radiated Spurious Emissions	PASS	Note (2)(3)
24.232(d)	Peak To Average Ratio	PASS	Note (2)(3)
2.1055 24.235	Frequency Stability	PASS	Note (2)(3)

Note:

- (1) "N/A" denotes test is not applicable in this test report.
- (2) Please refer to module report RF190315C13-1 with FCC ID: LHJ-BL28RW001, dated 2019-Apr-16.
- (3) The test was not performed by the BTL Laboratory.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town, Dongguan City, Guangdong, People's Republic of China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor ($k=2$))

The BTL measurement uncertainty as below table:

A. Other Measurement:

Parameter	Uncertainty
Maximum Output Power	± 0.95 dB
Temperature	± 0.08 °C
Time	± 0.58 %
Supply voltages	± 0.3 %

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
Output Power & EIRP	21.4°C	47%	DC 12V	Tate Liu
Band Edge	21.4°C	47%	DC 12V	Tate Liu

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Intelligent Antenna Module			
Brand Name	Continental			
Test Model	BSRF-V1RWHIGH.0			
Series Model	N/A			
Model Difference(s)	N/A			
RF Module Model	BL28RW-001			
Hardware Version	D5			
Software Version	V15_1.15.1.21.10.30			
Power Source	Supplied from battery.			
Power Rating	DC 12V			
IEMI No.	357997640006249			
Modulation Type	EDGE/GPRS		GMSK, 8PSK	
	WCDMA/HSDPA/HSUPA		QPSK	
	LTE		QPSK, 16QAM	
Max. EIRP	GPRS 1900		GMSK	32.91 dBm
	EDGE 1900		8PSK	29.51 dBm
	WCDMA Band II		QPSK	28.02 dBm
	HSDPA Band II		QPSK	27.08 dBm
	HSUPA Band II		QPSK	27.19 dBm
	LTE	Channel Bandwidth (MHz)	QPSK (dBm)	16QAM (dBm)
	Band 2	1.4	27.84	26.94
		3	27.98	27.00
		5	27.86	26.81
		10	27.98	26.82
		15	27.84	26.79
		20	28.11	26.74

Note:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

PCS 1900				
Test Frequency ID	UARFCN	Frequency of Uplink (MHz)	UARFCN	Frequency of Downlink (MHz)
Low Range	512	1850.2	528	1930.2
Mid Range	661	1880	677	1960
High Range	810	1909.8	826	1989.8

WCDMA Band II				
Test Frequency ID	UARFCN	Frequency of Uplink (MHz)	UARFCN	Frequency of Downlink (MHz)
Low Range	9262	1852.4	9662	1932.4
Mid Range	9400	1880.0	9800	1960.0
High Range	9538	1907.6	9938	1987.6

LTE Band 2					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	18607	1850.7	607	1930.7
	3	18615	1851.5	615	1931.5
	5	18625	1852.5	625	1932.5
	10	18650	1855	650	1935
	15	18675	1857.5	675	1937.5
	20	18700	1860	700	1940
Mid Range	1.4/3/5/10/15/20	18900	1880	900	1960
High Range	1.4	19193	1909.3	1193	1989.3
	3	19185	1908.5	1185	1988.5
	5	19175	1907.5	1175	1987.5
	10	19150	1905	1150	1985
	15	19125	1902.5	1125	1982.5
	20	19100	1900	1100	1980

3. Table for Filed Antenna:

Main Antenna

Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
N/A	N/A	PCB	N/A	5.5	PCS 1900
N/A	N/A	PCB	N/A	5.5	WCDMA Band II
N/A	N/A	PCB	N/A	5.5	LTE Band 2

Second Antenna

Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
N/A	N/A	PCB	N/A	-5.0	PCS 1900
N/A	N/A	PCB	N/A	-5.0	WCDMA Band II
N/A	N/A	PCB	N/A	-5.0	LTE Band 2

Note: The antenna gain is provided by the manufacturer.

2.2 DESCRIPTION OF TEST MODES

Following mode(s) is (were) found to be the worst case(s) and selected for the final test.

GSM MODE			
Test Item	Available Channel	Tested Channel	Mode
Output Power & EIRP	512 to 810	512, 661, 810	GPRS, EDGE
Band Edge	512 to 810	512, 810	GPRS, EDGE

WCDMA BAND II MODE			
Test Item	Available Channel	Tested Channel	Mode
Output Power & EIRP	9262 to 9538	9262, 9400, 9538	WCDMA, HSDPA, HSUPA
Band Edge	9262 to 9538	9262, 9538	WCDMA, HSDPA, HSUPA

LTE BAND 2 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Output Power & EIRP	18607 to 19193	18607, 18900, 19193	1.4MHz	QPSK, 16QAM	1RB/3RB/6RB
	18615 to 19185	18615, 18900, 19185	3MHz	QPSK, 16QAM	1RB/8RB/15RB
	18625 to 19175	18625, 18900, 19175	5MHz	QPSK, 16QAM	1RB/12RB/25RB
	18650 to 19150	18650, 18900, 19150	10MHz	QPSK, 16QAM	1RB/25RB/50RB
	18675 to 19125	18675, 18900, 19125	15MHz	QPSK, 16QAM	1RB/36RB/75RB
	18700 to 19100	18700, 18900, 19100	20MHz	QPSK, 16QAM	1RB/50RB/100RB
Band Edge	18607 to 19193	18607, 19193	1.4MHz	QPSK	1RB/6RB
	18615 to 19185	18615, 19185	3MHz	QPSK	1RB/15RB
	18625 to 19175	18625, 19175	5MHz	QPSK	1RB/25RB
	18650 to 19150	18650, 19150	10MHz	QPSK	1RB/50RB
	18675 to 19125	18675, 19125	15MHz	QPSK	1RB/75RB
	18700 to 19100	18700, 19100	20MHz	QPSK	1RB/100RB

Note: For output power test, all antennas had been pre-tested, the main antenna is found to be the worst case. So all test item result of main antenna have been recorded in this report.

3. TEST RESULT

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMIT

Mobile / Portable station are limited to 2 watts e.i.r.p.

3.1.2 TEST PROCEDURE

The testing follows FCC KDB 971168 v03r01 Section 5.

EIRP:

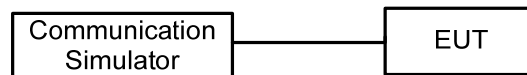
$EIRP = \text{Output Power} + \text{Antenan gain}$

Output Power:

The EUT was set up for the maximum power with GSM, GPRS, EDGE, WCDMA and LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

3.1.3 TEST SETUP LAYOUT

Output Power Measurement



3.1.4 TEST DEVIATION

No deviation

3.1.5 TEST RESULTS

Please refer to the APPENDIX A.

3.2 BAND EDGE MEASUREMENT

3.2.1 LIMIT

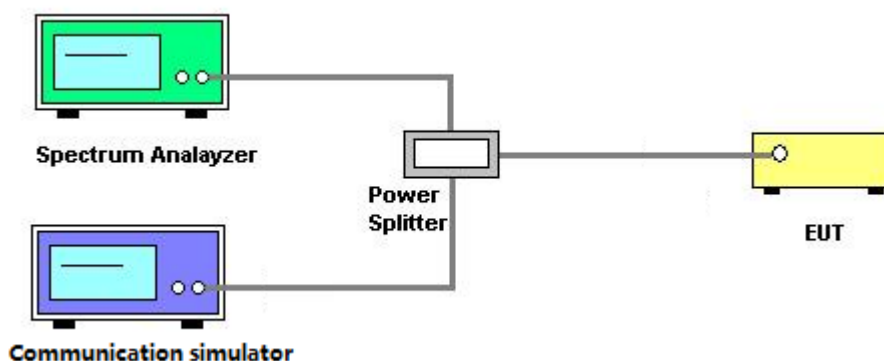
A Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

3.2.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6.

1. All measurements were done at low and high operational frequency range.
2. Record the max trace plot into the test report.

3.2.3 TEST SETUP LAYOUT



3.2.4 TEST DEVIATION

No deviation

3.2.5 TEST RESULTS

Please refer to the APPENDIX B.

4. LIST OF MEASUREMENT EQUIPMENTS

Conducted Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Wireless Communication Test SET	Agilent	E5515C	MY48364183	Feb. 28, 2022
2	EXA Spectrum Analyzer	Agilent	N9010A	MY50520044	Feb. 28, 2022
3	POWER SPLITTER	Mini-Circuits	ZFRSC-123-S+	331000910-1	Feb. 27, 2022
4	wideband radio communication tester	R&S	CMW500	152372	Feb. 27, 2022

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

APPENDIX A - OUTPUT POWER

Output Power (dBm):

PCS1900		512CH	661CH	810CH
		1850.2MHz	1880MHz	1909.8MHz
GPRS/EDGE (GMSK)	1 Tx Slot	27.41	27.39	27.24
	2 Tx Slot	27.41	27.32	27.17
	3 Tx Slot	27.33	27.23	27.11
	4 Tx Slot	27.27	27.16	27.04
EDGE (8PSK)	1 Tx Slot	23.99	23.83	23.58
	2 Tx Slot	24.01	23.87	23.61
	3 Tx Slot	23.82	23.76	23.49
	4 Tx Slot	23.79	23.59	23.42

Modulation	Band	WCDMA Band II		
	Tx Channel	9262CH	9400CH	9538CH
	Frequency	1852.4MHz	1880MHz	1907.6MHz
QPSK	RMC 12.2K	22.12	22.32	22.51
	RMC 64K	22.14	22.32	22.51
	RMC 144K	22.12	22.32	22.51
	RMC 384K	22.12	22.33	22.52
	HSDPA Subtest-1	21.13	21.39	21.58
	HSDPA Subtest-2	21.29	21.42	21.58
	HSDPA Subtest-3	20.87	20.89	21.07
	HSDPA Subtest-4	20.87	20.89	21.07
	HSUPA Subtest-1	20.75	21.29	21.42
	HSUPA Subtest-2	20.34	19.9	20.17
	HSUPA Subtest-3	19.91	19.44	19.62
	HSUPA Subtest-4	20.53	20.09	21.09
	HSUPA Subtest-5	21.26	21.36	21.69

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18607CH	18900CH	19193CH
				1850.7MHz	1880MHz	1909.3MHz
2 / 1.4M	QPSK	1	0	22.17	22.17	22.15
		1	2	22.24	22.30	22.26
		1	5	22.16	22.18	22.18
		3	0	22.09	22.31	21.97
		3	1	22.13	22.34	22.07
		3	2	22.11	22.32	22.03
		6	0	21.14	21.31	20.97
	16QAM	1	0	21.30	21.20	20.93
		1	2	21.31	21.40	21.02
		1	5	21.21	21.26	20.95
		3	0	21.22	21.38	21.18
		3	1	21.25	21.44	21.21
		3	2	21.19	21.38	21.13
		6	0	20.09	20.33	20.05

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18615CH	18900CH	19185CH
				1851.5MHz	1880MHz	1908.5MHz
2 / 3M	QPSK	1	0	22.30	22.22	22.34
		1	7	22.43	22.43	22.48
		1	14	22.17	22.13	22.22
		8	0	21.16	21.33	20.98
		8	4	21.16	21.32	21.00
		8	7	21.14	21.34	20.98
		15	0	21.12	21.29	20.98
	16QAM	1	0	21.28	21.23	21.23
		1	7	21.42	21.50	21.35
		1	14	21.14	21.14	21.16
		8	0	20.11	20.34	20.06
		8	4	20.13	20.32	20.02
		8	7	20.18	20.34	20.07
		15	0	20.17	20.36	20.03

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18625CH	18900CH	19175CH
				1852.5MHz	1880MHz	1907.5MHz
2 / 5M	QPSK	1	0	22.25	22.27	22.17
		1	13	22.20	22.36	22.21
		1	24	22.08	22.24	22.08
		12	0	21.13	21.09	20.87
		12	6	21.37	21.50	21.36
		12	11	21.32	21.44	21.11
		25	0	21.42	21.45	21.10
	16QAM	1	0	21.20	21.22	21.23
		1	13	21.31	21.24	21.04
		1	24	21.11	21.25	21.08
		12	0	19.89	19.96	19.98
		12	6	20.33	20.32	20.05
		12	11	20.36	20.45	20.08
		25	0	20.38	20.52	20.19

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18650CH	18900CH	19150CH
				1855MHz	1880MHz	1905MHz
2 / 10M	QPSK	1	0	22.34	22.09	22.48
		1	25	22.34	22.34	22.41
		1	49	22.35	21.89	22.22
		25	0	21.17	21.38	21.15
		25	13	21.22	21.42	21.16
		25	25	21.18	21.21	21.00
		50	0	21.23	21.25	21.13
	16QAM	1	0	21.28	21.20	21.32
		1	25	21.23	21.24	21.32
		1	49	21.16	20.89	21.08
		25	0	20.18	20.35	20.14
		25	13	20.17	20.35	20.20
		25	25	20.19	20.19	20.09
		50	0	20.21	20.25	20.17

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18675CH	18900CH	19125CH
				1857.5MHz	1880MHz	1902.5MHz
2 / 15M	QPSK	1	0	22.34	22.07	22.09
		1	38	22.23	22.24	22.11
		1	74	22.11	21.91	21.92
		36	0	21.21	21.38	21.20
		36	18	21.21	21.37	21.19
		36	39	21.19	21.16	21.03
		75	0	21.24	21.23	21.05
	16QAM	1	0	21.13	21.14	21.25
		1	38	21.12	21.28	21.29
		1	74	20.91	20.82	21.09
		36	0	20.18	20.35	20.21
		36	18	20.19	20.32	20.18
		36	39	20.19	20.12	20.02
		75	0	20.17	20.20	20.13

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18700CH	18900CH	19100CH
				1860MHz	1880MHz	1900MHz
2 / 20M	QPSK	1	0	22.12	22.31	22.07
		1	50	22.22	22.61	22.20
		1	99	22.00	22.24	21.93
		50	0	21.25	21.37	21.13
		50	25	21.29	21.33	21.33
		50	50	21.19	21.17	21.18
		100	0	21.07	21.33	21.14
	16QAM	1	0	21.07	20.93	20.98
		1	50	21.08	21.24	21.20
		1	99	20.92	20.80	20.85
		50	0	20.23	20.34	20.12
		50	25	20.19	20.25	20.23
		50	50	20.08	20.12	20.16
		100	0	20.14	20.28	20.12

EIRP (dBm):

PCS1900		512CH	661CH	810CH
		1850.2MHz	1880MHz	1909.8MHz
GPRS/EDGE (GMSK)	1 Tx Slot	32.91	32.89	32.74
	2 Tx Slot	32.91	32.82	32.67
	3 Tx Slot	32.83	32.73	32.61
	4 Tx Slot	32.77	32.66	32.54
EDGE (8PSK)	1 Tx Slot	29.49	29.33	29.08
	2 Tx Slot	29.51	29.37	29.11
	3 Tx Slot	29.32	29.26	28.99
	4 Tx Slot	29.29	29.09	28.92

Modulation	Band	WCDMA Band II		
	Tx Channel	9262CH	9400CH	9538CH
	Frequency	1852.4MHz	1880MHz	1907.6MHz
QPSK	RMC 12.2K	27.62	27.82	28.01
	RMC 64K	27.64	27.82	28.01
	RMC 144K	27.62	27.82	28.01
	RMC 384K	27.62	27.83	28.02
	HSDPA Subtest-1	26.63	26.89	27.08
	HSDPA Subtest-2	26.79	26.92	27.08
	HSDPA Subtest-3	26.37	26.39	26.57
	HSDPA Subtest-4	26.37	26.39	26.57
	HSUPA Subtest-1	26.25	26.79	26.92
	HSUPA Subtest-2	25.84	25.40	25.67
	HSUPA Subtest-3	25.41	24.94	25.12
	HSUPA Subtest-4	26.03	25.59	26.59
	HSUPA Subtest-5	26.76	26.86	27.19

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18607CH	18900CH	19193CH
				1850.7MHz	1880MHz	1909.3MHz
2 / 1.4M	QPSK	1	0	28.03	27.98	27.96
		1	2	28.09	28.10	28.05
		1	5	28.02	28.02	28.14
		3	0	28.11	27.86	27.85
		3	1	28.11	27.91	27.94
		3	2	28.12	27.86	27.97
		6	0	27.11	26.95	26.92
	16QAM	1	0	26.93	26.94	26.75
		1	2	26.98	27.09	26.85
		1	5	26.99	26.94	26.87
		3	0	27.21	26.86	26.92
		3	1	27.23	26.97	26.92
		3	2	27.21	26.92	27.05
		6	0	26.02	25.82	25.78

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18615CH	18900CH	19185CH
				1851.5MHz	1880MHz	1908.5MHz
2 / 3M	QPSK	1	0	28.24	27.83	27.95
		1	7	28.30	27.97	28.31
		1	14	28.08	27.93	28.22
		8	0	27.14	26.98	26.87
		8	4	27.11	26.97	26.95
		8	7	27.13	26.95	26.94
		15	0	27.09	26.97	26.89
	16QAM	1	0	27.21	26.88	26.68
		1	7	27.37	27.09	26.94
		1	14	27.07	27.07	26.80
		8	0	26.10	25.79	25.75
		8	4	26.08	25.81	25.81
		8	7	26.00	25.83	25.89
		15	0	26.03	25.85	25.90

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18625CH	18900CH	19175CH
				1852.5MHz	1880MHz	1907.5MHz
2 / 5M	QPSK	1	0	28.06	27.93	27.79
		1	13	28.14	27.92	27.95
		1	24	27.92	28.01	28.15
		12	0	27.17	27.06	27.15
		12	6	27.15	26.98	27.05
		12	11	27.03	27.09	27.10
		25	0	27.16	27.01	26.86
	16QAM	1	0	26.91	26.86	26.87
		1	13	26.90	26.99	26.93
		1	24	26.85	27.00	27.07
		12	0	26.00	26.07	26.02
		12	6	26.23	25.95	26.01
		12	11	26.18	25.92	26.14
		25	0	26.16	26.07	25.93

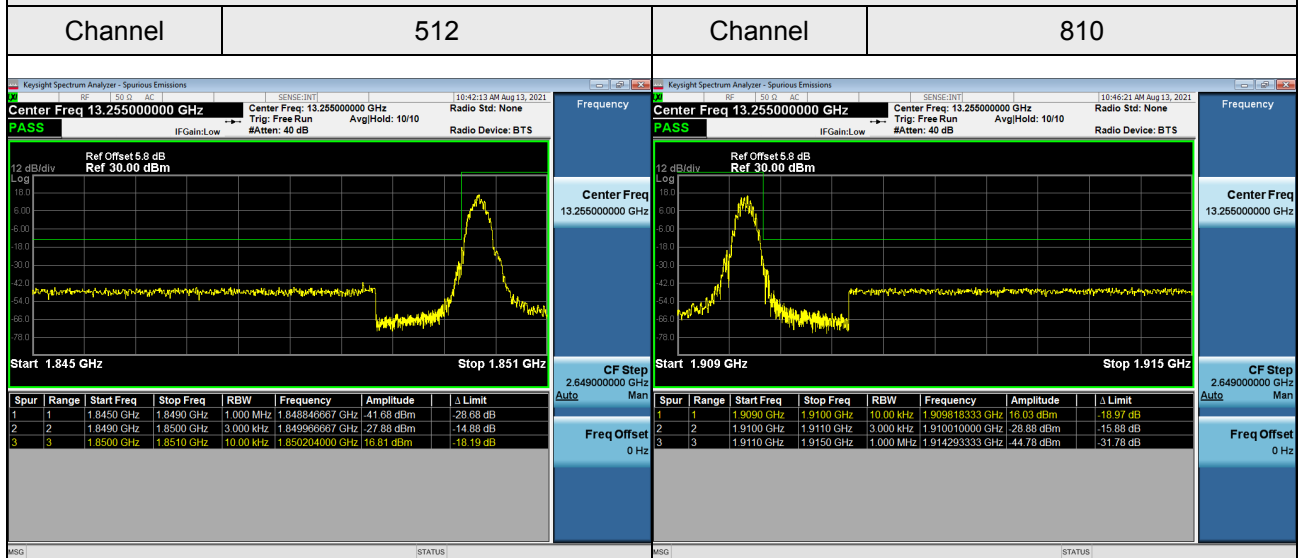
LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18650CH	18900CH	19150CH
				1855MHz	1880MHz	1905MHz
2 / 10M	QPSK	1	0	28.18	27.85	28.07
		1	25	28.18	27.87	28.07
		1	49	28.18	27.81	28.27
		25	0	27.05	26.95	26.94
		25	13	27.10	26.92	26.94
		25	25	27.03	26.92	26.86
		50	0	27.07	26.97	26.86
	16QAM	1	0	26.95	26.68	26.99
		1	25	27.10	26.98	27.04
		1	49	26.93	26.65	27.13
		25	0	25.98	25.88	25.82
		25	13	25.98	25.85	25.83
		25	25	25.97	25.88	25.82
		50	0	25.96	25.89	25.84

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18675CH	18900CH	19125CH
				1857.5MHz	1880MHz	1902.5MHz
2 / 15M	QPSK	1	0	28.17	27.99	27.92
		1	38	28.04	27.76	27.83
		1	74	28.24	27.85	27.96
		36	0	27.04	26.97	26.91
		36	18	27.08	26.92	26.93
		36	39	27.02	26.88	26.88
		75	0	26.99	26.91	26.86
	16QAM	1	0	26.95	26.89	27.08
		1	38	26.94	26.85	27.04
		1	74	26.98	26.76	27.19
		36	0	25.96	25.88	25.86
		36	18	25.97	25.89	25.88
		36	39	25.97	25.87	25.88
		75	0	25.96	25.88	25.86

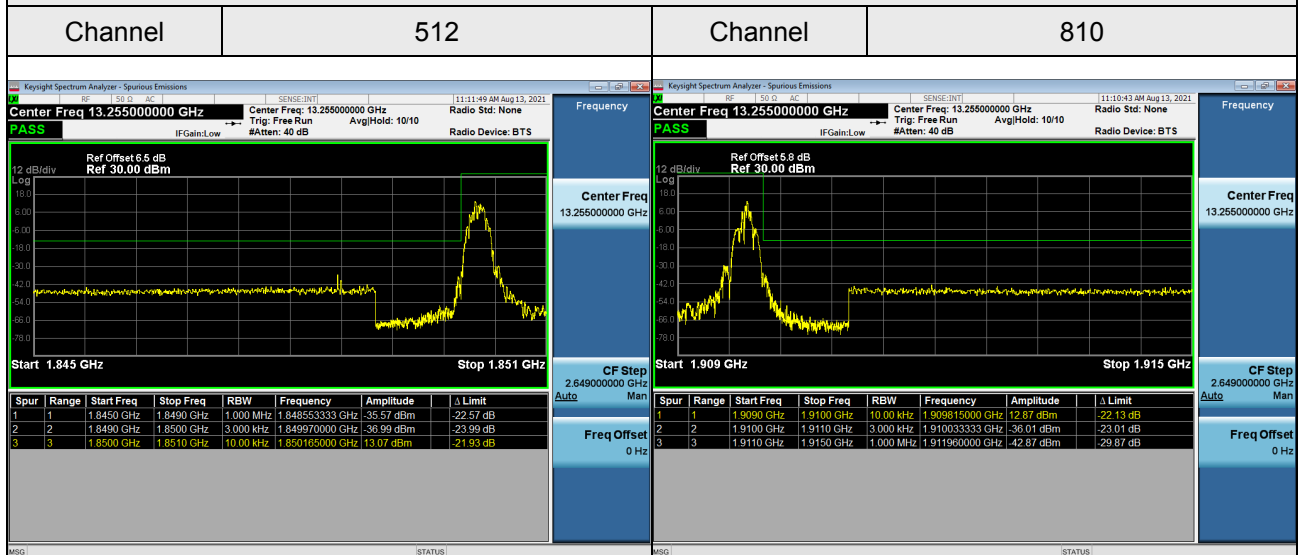
LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				18700CH	18900CH	19100CH
				1860MHz	1880MHz	1900MHz
2 / 20M	QPSK	1	0	27.88	28.03	28.20
		1	50	27.96	27.87	28.09
		1	99	27.88	27.78	28.19
		50	0	27.08	26.97	26.99
		50	25	26.99	27.00	26.95
		50	50	27.05	26.94	26.91
		100	0	27.05	26.96	27.05
	16QAM	1	0	26.63	26.87	27.00
		1	50	26.89	26.82	26.94
		1	99	26.71	26.67	26.99
		50	0	25.98	25.88	25.98
		50	25	25.96	25.88	25.86
		50	50	25.96	25.87	25.85
		100	0	25.99	25.89	25.96

APPENDIX B - BAND EDGE

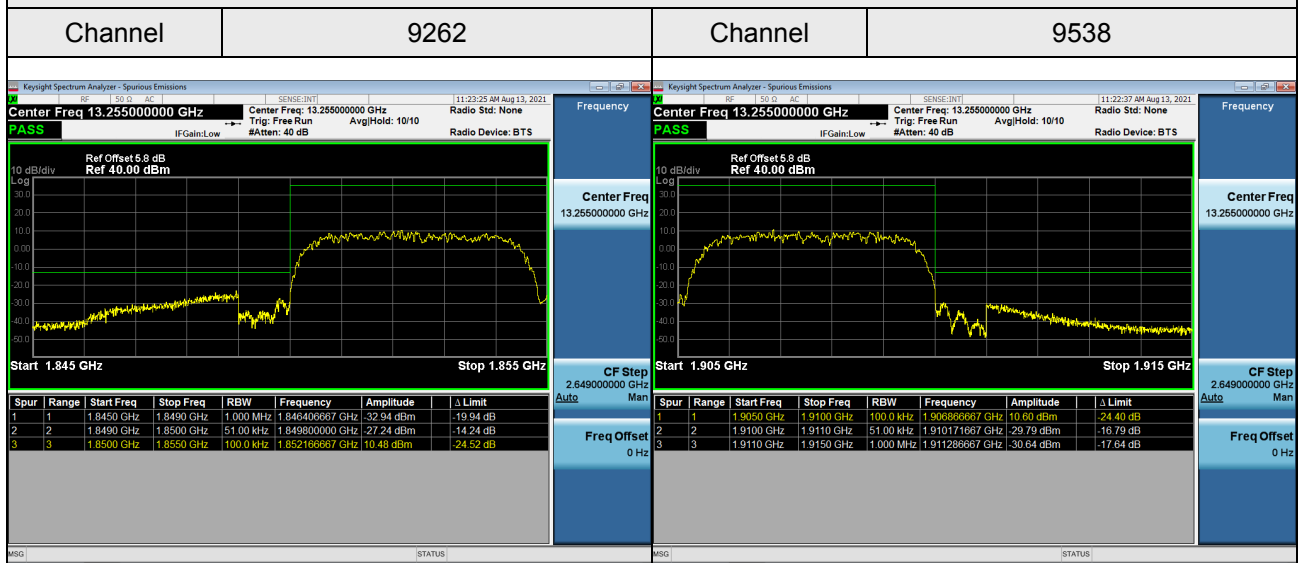
PCS1900_GPRS Spectrum Plot



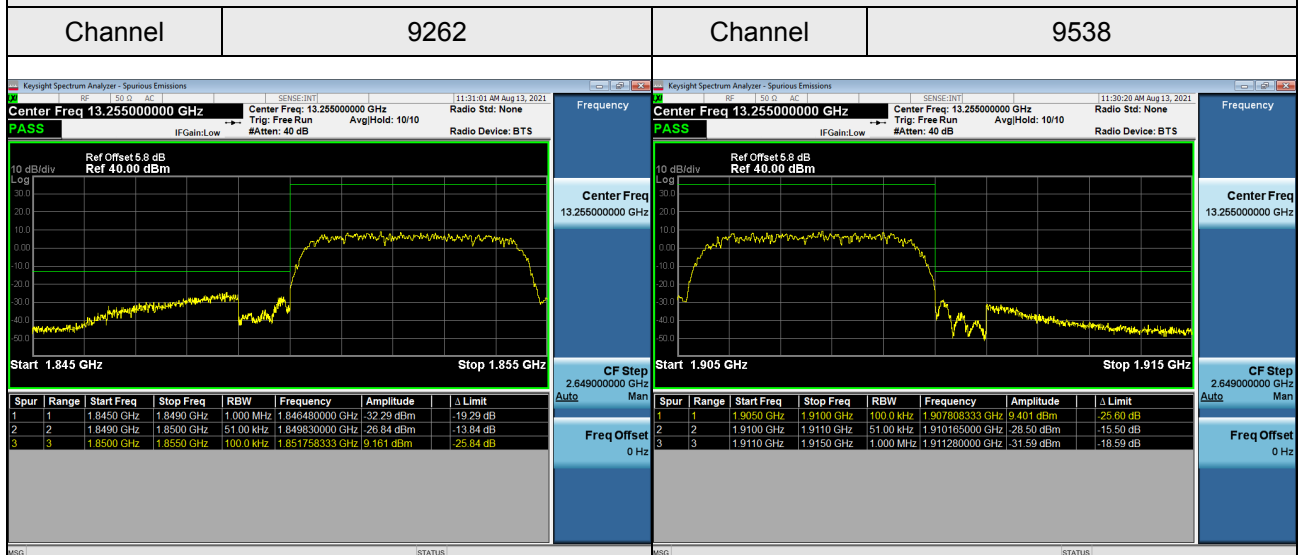
EDGE



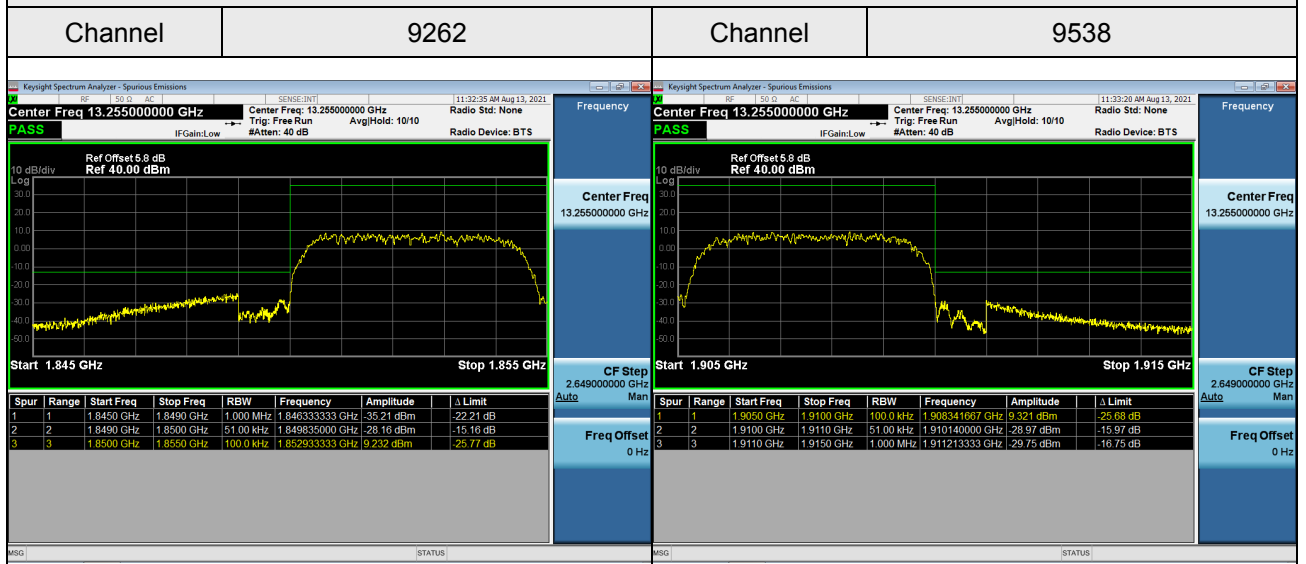
WCDMA Band II_WCDMA Spectrum Plot



WCDMA Band II_HSDPA Spectrum Plot



WCDMA Band II_HSUPA Spectrum Plot



LTE Band 2_1.4M Spectrum Plot

1RB#0

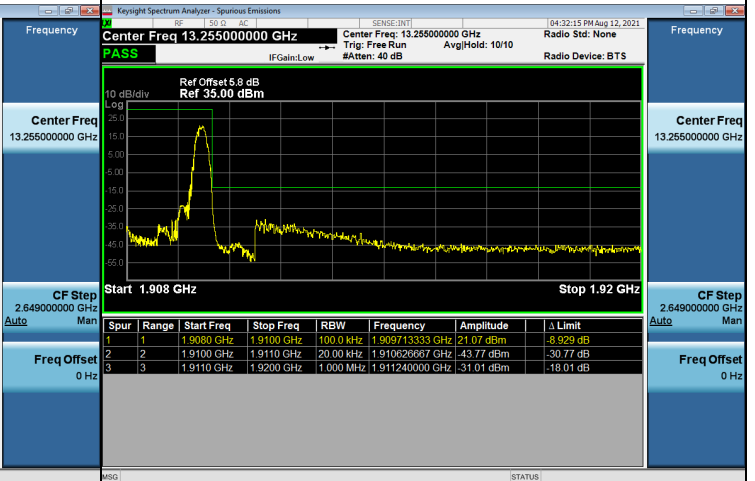
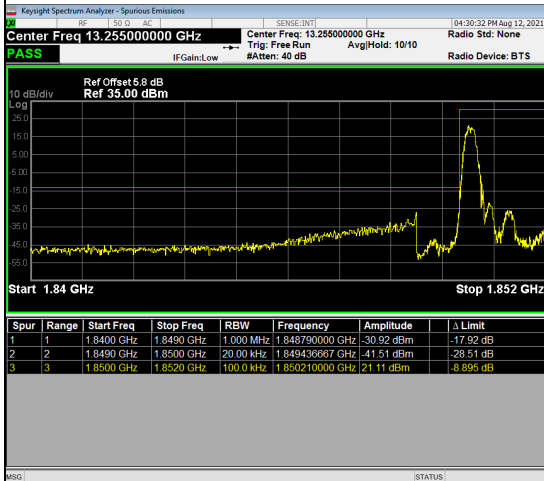
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Channel

18607

Channel

19193



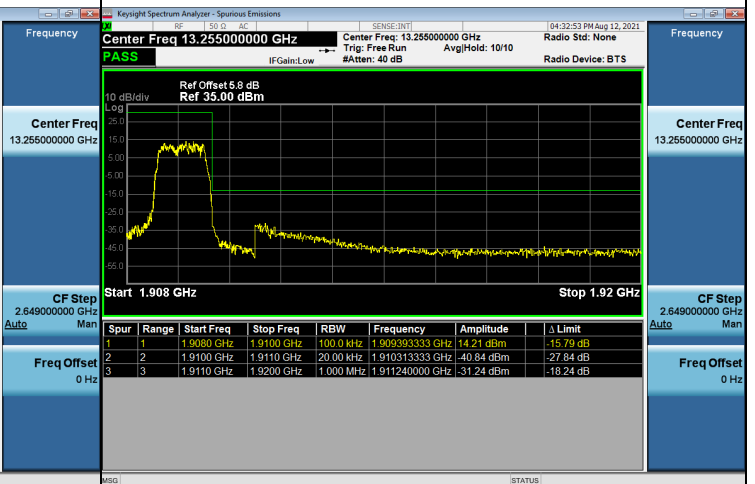
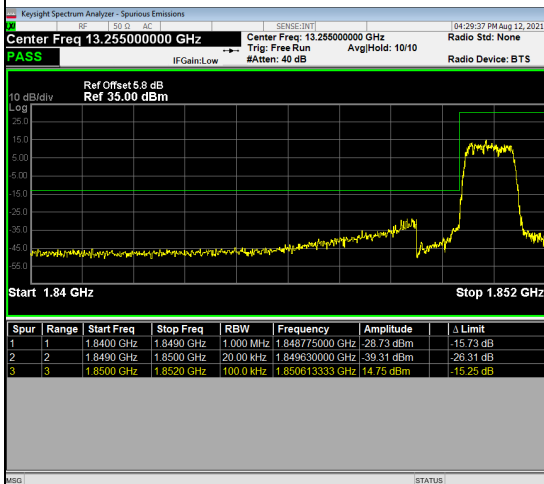
6RB#0

Channel

18607

Channel

19193



LTE Band 2_3M Spectrum Plot

1RB#0

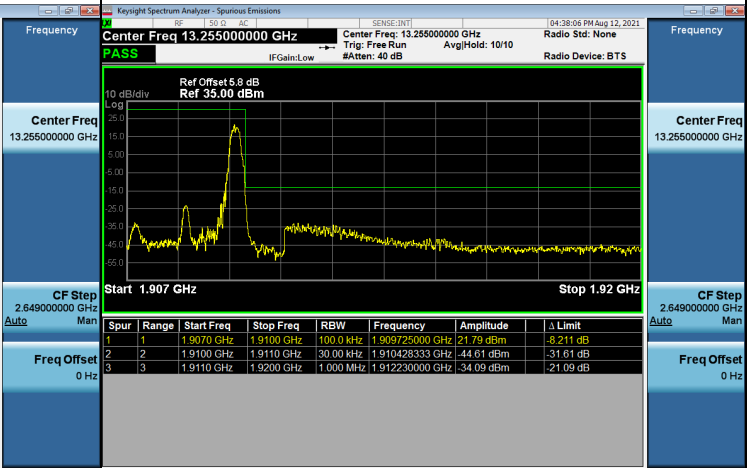
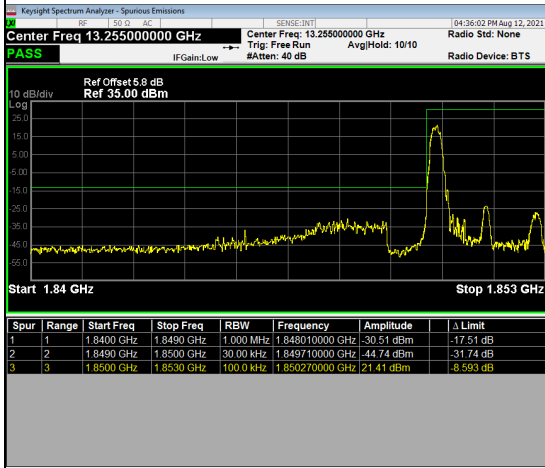
1RB#14

Channel

18615

Channel

19185



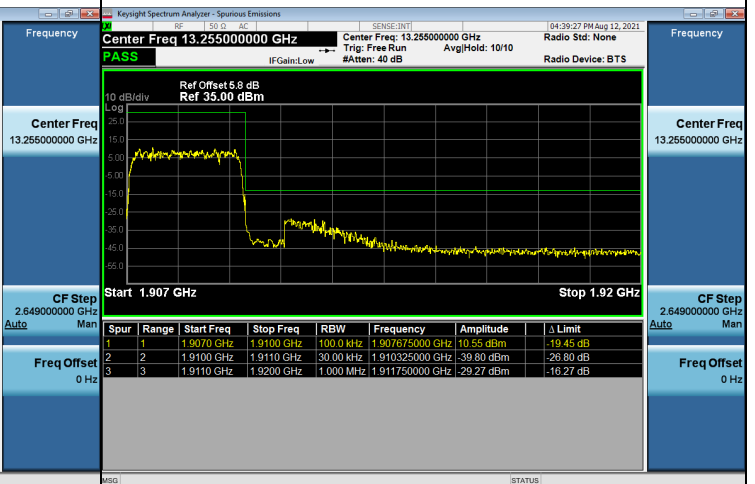
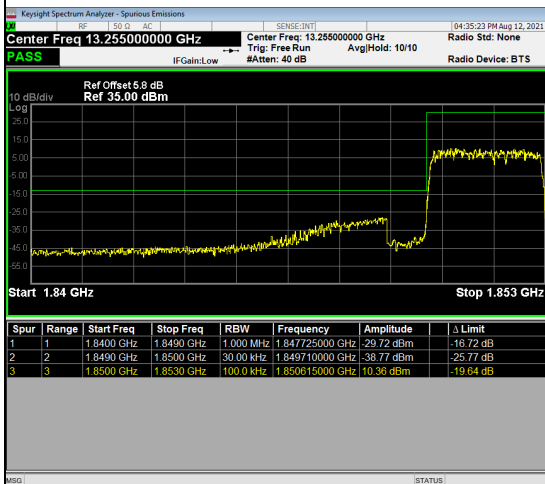
15RB#0

Channel

18615

Channel

19185



LTE Band 2_5M Spectrum Plot

1RB#0

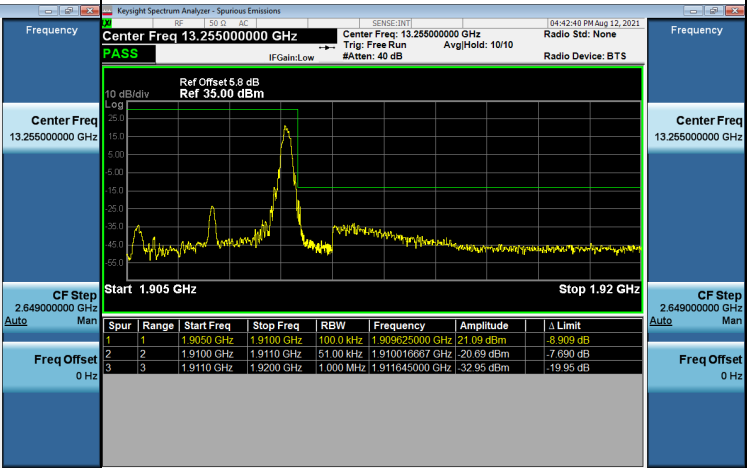
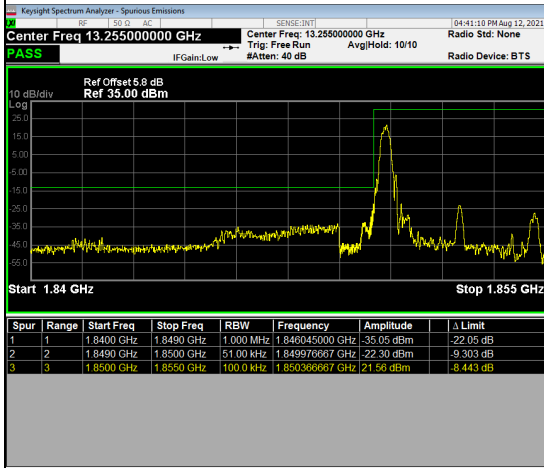
1RB#24

Channel

18625

Channel

19175



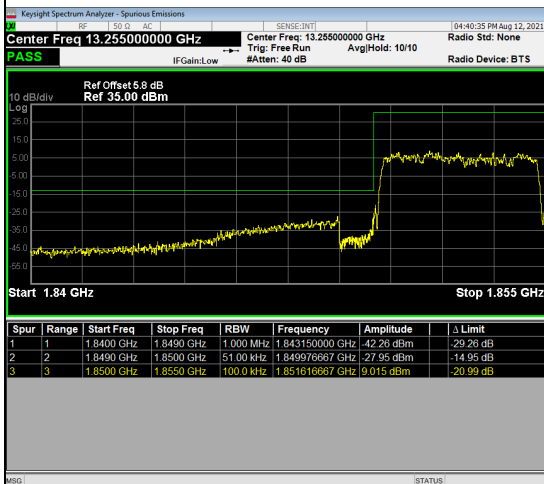
25RB#0

Channel

18625

Channel

19175



LTE Band 2_10M Spectrum Plot

1RB#0

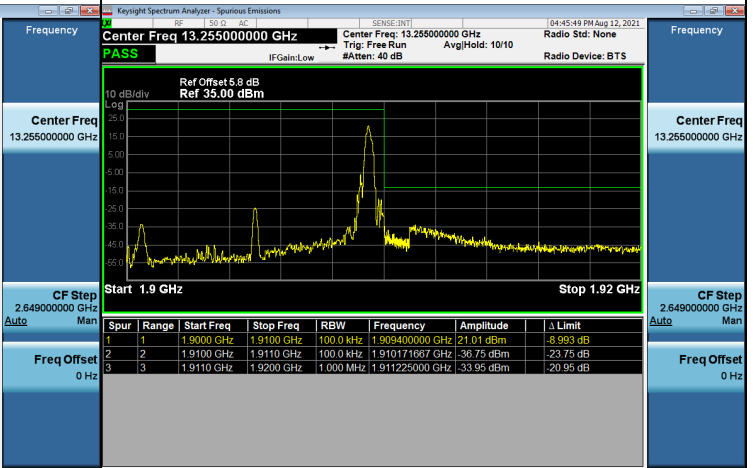
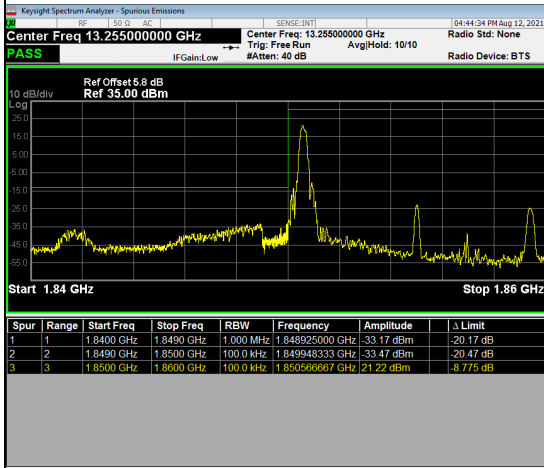
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Channel

18650

Channel

19150



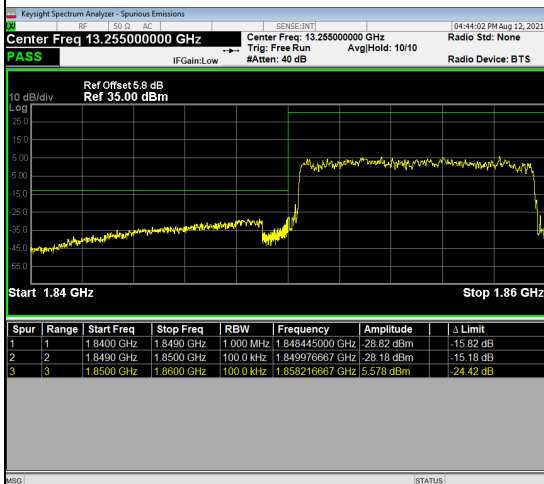
50RB#0

Channel

18650

Channel

19150



LTE Band 2_15M Spectrum Plot

1RB#0

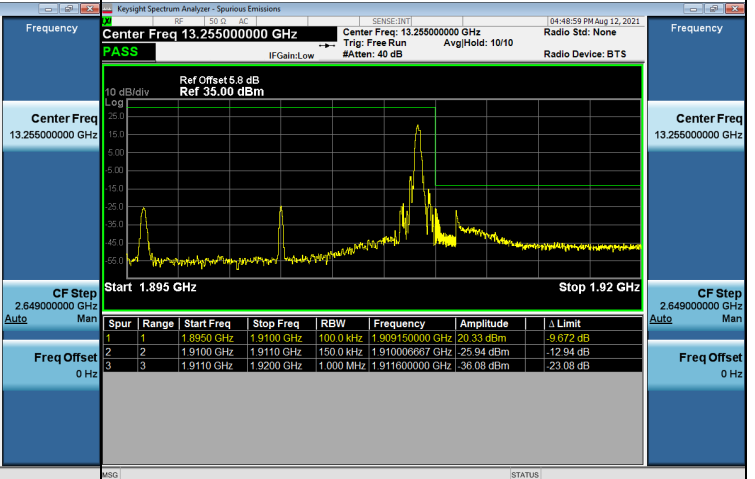
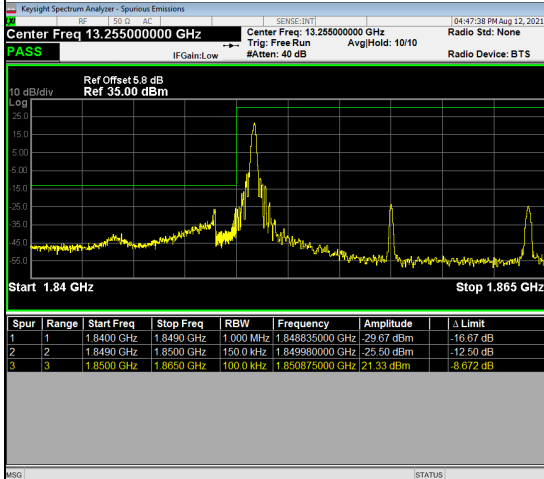
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Channel

18675

Channel

19125



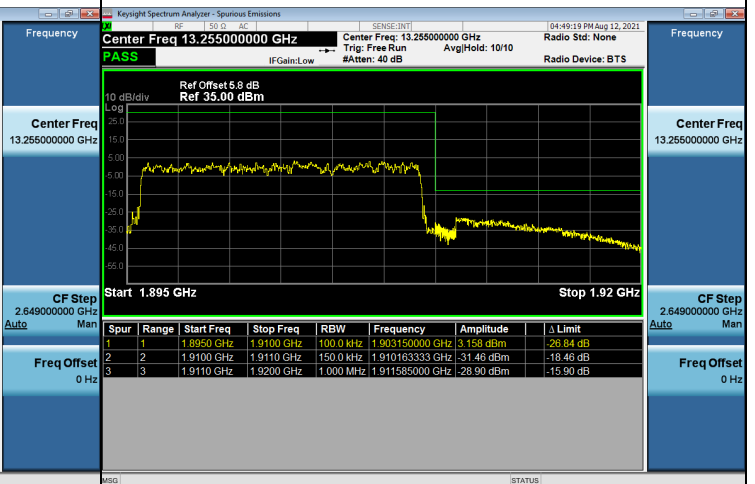
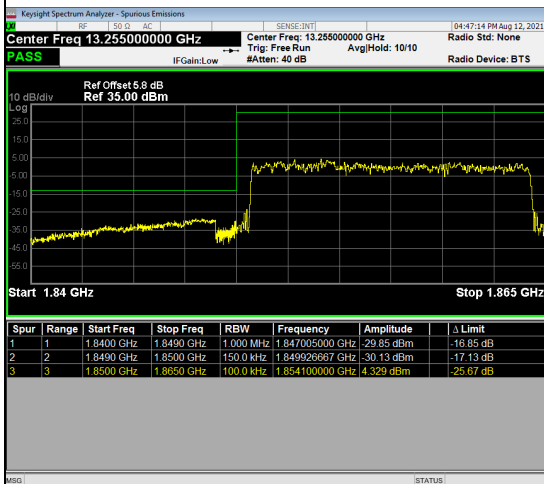
75RB#0

Channel

18675

Channel

19125



LTE Band 2_20M Spectrum Plot

1RB#0

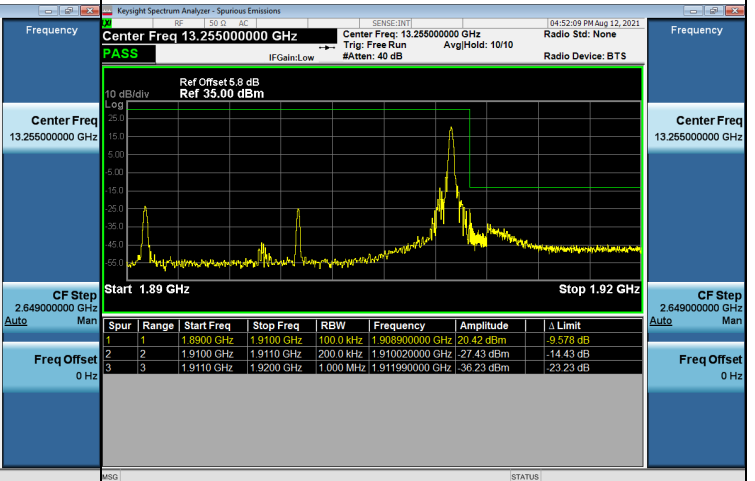
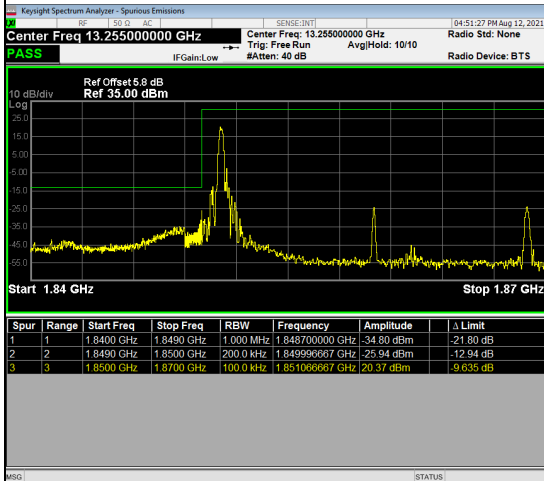
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Channel

18700

Channel

19100



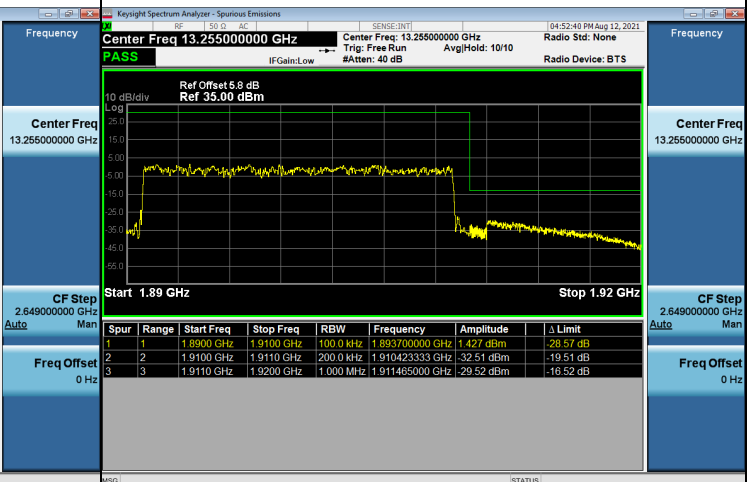
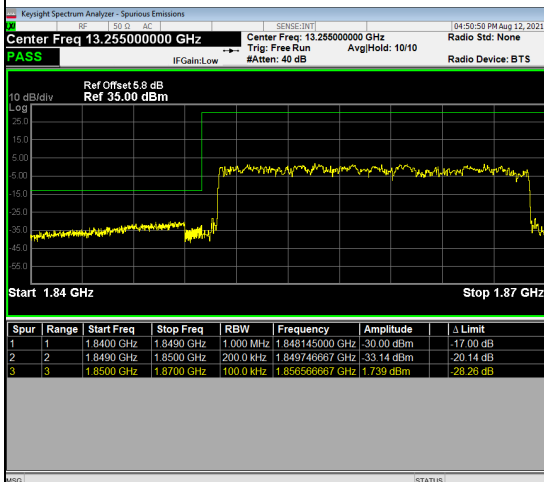
100RB#0

Channel

18700

Channel

19100



End of Test Report